

Notes.

N.G.C. 3145. I make the place of this interesting nebula for 1860 $10^h 3^m 3^s - 11^\circ 38' 45''$ γ B, L, γ E, much obscured by proximity to λ Hydræ np. New Gen. Catalogue has $10^h 3^m 18^s - 11^\circ 44' 18''$, F. pL, R. It is very strange H. should say nothing about the star. As, however, our places are not very wide apart, I assume that my object is identical with 3145, yet that he should call it round is another mystery. It is not permissible to suppose that since its discovery in 1786 any change has taken place.

No. 1. This list is another hair line nebula, much resembling No. 7, list 4. There is a slight bulging in the centre, but it requires very close scrutiny to see it. They must be rings or flat disks placed parallel to our line of sight. In the field preceding there are several stars forming a segment of a large circle, and 3 stars like belt of *Orion*. No bright star near.

No. 14. This is not one of Sir John Herschel's 9. I have another near; stellar.

No. 19. List No. 6, as published in A.J. and perhaps other publications, contains a typographical error. For Dec -22° read 32° .

A Remarkable Object in Perseus. By the Rev. T. E. Espin, B.A.

On the night of January 16, while sweeping for red stars and stars with remarkable spectra, I passed suddenly from the starry background into what appeared to be a cloud. Although the night was very clear, yet I felt convinced it was a cloud, and continued my sweep. At the end of the sweep the telescope, as is usual, was moved $40'$ south and the return sweep made. I again came upon the peculiar obscuration. My suspicions were aroused, as it seemed strange that on a clear sky there should be a small cloud, and that stationary. I waited twenty minutes, and then re-examined the object, and found it still there. I marked it on the B. D. charts, and next morning turned to the New General Catalogue of Nebulæ and the Addenda, but could not find it. On January 24 I re-examined it, and by rapid sweeping laid down its limits. They are as follows:—

$$\left. \begin{array}{l} \text{In R.A. from } 4^h 23^m 30^s \text{ to } 4^h 28^m 30^s \\ \text{Decl. } \quad \quad \quad + 50^\circ 15' \quad \quad + 51^\circ 14' \end{array} \right\} 1855.$$

This gives as its centre:—

$$\text{P.A. } 4^h 26^m 0^s. \text{ Decl. } + 50^\circ 44' 5'' (1855).$$

It was observed again on January 25. The blotting out of the stars was very marked, and the object seemed more remarkable than ever. It is elliptical, major axis $P=336^\circ$. It was also observed on February 16 and February 17. An attempt was made to photograph the region on January 24, but the night was very unsteady, and though the exposure was carried on for two hours, the plate only gives stars to the 12th magnitude. N.G.C. 1624, which had been picked up independently, had left

a trace on the plate, but there was no trace of the new object. A photo was again attempted on February 17, but at the end of twenty-five minutes it clouded up. Meantime I had written to Mr. Heath at Edinburgh, and he informs me that Dr. Halm found it on February 17, with the 6 in. refractor, without much difficulty. Mr. Heath also saw it, and says: "To both of us it conveyed the impression of an attenuated cloud-like object or haze, producing a difference of colour from that of the neighbouring sky, and, as you remark, dimming the tiny stars which appear to shine through it."

Ephemeris for Physical Observations of the Moon, 1898 April 16 to 1899 January 1. By A. C. D. Crommelin.

This ephemeris has been constructed in the same manner as those communicated by Mr. Marth, and commences at the point where his last one terminates (vol. lvii. 8, p. 613). The inclination of the Moon's equator to the ecliptic has been taken as $1^{\circ}52'3''$, the value employed by him for the last two years. As this value is used in the Libration Tables of the *Connaissance des Temps*, these tables have been utilised. But the Moon's longitude, latitude, mean longitude, and all other quantities required, have been taken from the *Nautical Almanac*. The principal term of the physical libration has also been applied, the co-efficient being $0^{\circ}037$ (Franz). The co-longitude of the Sun is 90° (or 45°)—his selenographical longitude. I have considered it better to make the ephemeris continuous without any break at new Moon, as this makes it easier to follow the character of the libration curves.

Greenwich Noon. 1898.	Selenographical		Geocentric Libration		Combined Amount.	Direc- tion.
	Colong. of the Sun.	Lat.	Sel. Long. of the Earth.	Lat.		
Apr. 16	211°79	+1°51	+4°82	-4°32	6°46	228°1
17	224°01	1°51	4°96	5°34	7°32	222°9
18	236°23	1°50	4°93	6°05	7°80	219°2
19	248°46	1°50	4°72	6°45	8°00	216°2
20	260°69	1°49	4°35	6°51	7°81	213°7
21	272°92	1°49	3°69	6°26	7°26	210°5
22	285°15	1°49	2°85	5°72	6°41	206°5
23	297°38	1°48	1°82	4°92	5°26	200°3
24	309°60	1°48	+0°61	3°92	3°96	188°9
25	321°83	1°48	-0°74	2°75	2°86	164°9
26	334°05	1°47	2°15	1°46	2°60	124°2
27	346°26	+1°47	-3°55	-0°11	3°55	91°8

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